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Meeting Information Needs of Cocoa Farmers in Selected Communities in the Eastern Region of Ghana

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Background information

The development of any nation depends on the production and exportation of key products and services for foreign exchange. Countries like Brazil, Botswana and Ghana owe their development to the production and exportation of sugar, diamond and cocoa respectively. According to ISSER (2008) cited in Baah, Anchirinah and Amon-Armah (2011) agriculture remains the largest sector in the Ghanaian economy in terms of its contribution with the cocoa sector being the most critical and contributing 31.8 percent to foreign exchange earnings and 28 percent of agricultural growth in 2006. In recent years, cocoa production has picked up due in part to higher producer prices, liberalization of internal marketing, establishment of a price stabilisation system, government-backed rehabilitation programmes, control of pests and diseases programme, fertilizer credits and the privatization of input supply to farmers (International Cocoa Organisation, 2007, cited in Baah, Anchirinah and Amon-Armah 2011).

Current and preceding governments have put up measures to ensure that Ghana's cocoa production reaches a level that will exceed the production level of La Cote D'Ivoire, the leading producer of cocoa in the world. Several steps including free mass spraying programme, provision of credit facilities to farmers, provision of scholarships and bursary to children of these farmers, provision of a ready markets among others have been taken by these governments. All these interventions notwithstanding, the country has failed to attain that level. Some reasons that can be attributed to this phenomenon may include small scale farming practices, smuggling of the cocoa produce to neighbouring La Cote D'Ivoire, poor farming practices, and inadequate capital, land tenure system, illiteracy etc.

In Ghana, one major factor that has contributed to this development but has often been overlooked is that governments have been unable to identify and meet the information needs of these farmers. Every field, profession, industry etc needs relevant information to help in the realization of their missions and visions. Information according to Irivwieri (2007) is an idea conveyed for a useful purpose. It might be facts, data or knowledge revealed in the form of a written or spoken statements. Information is one vital resource that plays a significant role in a nation's development. Advances made in all fields of endeavour including the scientific and technology developments are made possible through the availability of information. Researchers

and scientists are able to develop or create new products by working on information made available to them. Information is now considered as one valuable factor of production. It is also considered as a raw material of communication. This means that information is supposed to be treated as a social goal rather than a marketable commodity regulated by economic forces alone. Information therefore needs to be made available in the same way as other basic social needs are provided since people need information to be able to live their lives responsibly in society.

The “information” and “need” in “information needs” always move together. Soper, Osborne and Zweizig (1990) define information needs as a need which library services and materials are intended to satisfy. According to Devadson and Lingam (1996) information needs is a lack of self sufficiency in one’s day to day work. Information needs represent the gaps in the current knowledge of the user. This implies that, whenever an individual is rendered incapable of completing his work or activity, then the issue of information need arises. This is because that individual definitely needs information to enable him to do his work or activity.

Understanding and helping in meeting the information needs of cocoa farmers can serve as a catalyst for national development. If this is not done, governments and other stakeholders may provide credit facilities, scholarships and other interesting packages, increment in cocoa production is going to be an illusion. This is because all these things provided by the government may not be the urgent needs of these farmers. It is therefore necessary to develop mechanisms and institutions for identifying and meeting the information needs of these cocoa farmers in a suitable form. This is because all business units including farming need information to exist, compete and survive.

This study which looked at the information needs of cocoa farmers was undertaken because it was projected that when the needs of these farmers are identified and met, it will help to boost the production of the industry which in effect will help increase the earnings of the country that will also be a universal remedy for development in the nation.

Statement of the problem

Although the production of cocoa in the last few years in Ghana has received increased support from the government, policy makers and stakeholders in the sector; little has been done to find out the information needs of the farmers of this valuable crop. Information is indispensable and a vital resource to all in general and cocoa farmers in particular. The competencies and increased productivity of these farmers depend on the degree to which they gain access to information relating some core agricultural practices. An improved information and knowledge flow to, from and within the agricultural sector are a key component in improving small-scale agricultural production and linking increased production to remunerative markets, thus leading to improved rural livelihoods, improving quality and yield, food security and national economies. Despite its potential for agricultural development, Adomi, Ogbomo and Inoni (2003) conceived that most African countries have not devoted their efforts to disseminating knowledge and information, especially in rural areas where 70 % to 80% of the African population lives.

Farming is one profession that depends on the constant flow of information. However, most farmers find it difficult to identify when they have the need for information. Again, in most parts of the country, especially in the Eastern Region, there are few information centres where farmers may resort to meet their information needs. Furthermore, even if these centres are available, they are not well resourced with best materials and personnel who can professionally handle these farmers most of whom are illiterates. This disturbing development has made most farmers to depend more on informal and less reliable sources like their friends, traditions handed over to them from generations etc. for their information needs. As a result of this, most of these farmers are not satisfied with the outcome of the sources and resources they use to meet their information needs. Reliance on such unpredictable sources has always led to appalling results such as low yielding, poor harvesting techniques, bad financial and credit decisions etc. This has always led to these farmers failing to meet their target output/production for all these years.

The researcher explores these key problem areas facing cocoa farmers in some selected cocoa growing communities in the Eastern Region of Ghana and provides recommendations based on the findings to stakeholders in the cocoa sector.

Purpose of the study

The purpose of this study was to investigate the information needs of cocoa farmers in some selected cocoa growing communities in the Eastern Region of Ghana.

Objectives

The specific objectives of this study included:

1. Determining the information needs of cocoa farmers in some selected cocoa growing communities in the Eastern Region.
2. Determining the type of information resources and services available to them.
3. Finding out what the farmers' knowledge of information resources and services that are available to them are.
4. Investigating the level of satisfaction of the farmers with these resources.
5. Making recommendations based on the findings that will help stakeholders in the agricultural sector appreciate the role information plays in national development.

Research questions

To be able to realize the purpose and objectives of this study, the following questions were asked:

1. What are the information needs of cocoa farmers?
2. What are the various resources and services of information they resort to?
3. How do they meet these information needs?
4. How satisfied are they with these sources?

Theoretical framework

A theory is defined as a set of interrelated constructs (variables), definitions and prepositions that present a systematic view of phenomena by specifying relations among variables with the purpose of explaining natural phenomena (Kerlinger 1997). The Shannon and Weaver model of communication developed by DeFleur (1970) was adopted for this study. This is because communication tailored to the audience's background and experience can improve people's participation in development.

Literature review

A thorough reviewing of related literature is one of the most important steps in conducting a research because it helps the researcher to understand and infer from basic concepts relating to the present study. Literatures relating to “The concept of information”, “Sources of information for cocoa farmers”, “Information needs of cocoa farmers”, “The information seeking process”, “Factors affecting information dissemination to farmers”,

Methodology

According to Busha & Harter (1986) research is conducted in a scientific community in order to resolve issues of significance or to add to theoretical knowledge. The research is a survey that investigated how cocoa farmers in some selected communities in the Eastern Region of Ghana meet their information needs. Questionnaires were the main instrument used in collecting data. The population for this study was the cocoa farmers in the Oda, Asamankese, Kade and Nkawkaw Districts of the Eastern Region of Ghana. An estimated total population of about 22,845 farmers was considered for this study. This according to the Ghana Research Directorate of the Ghana Cocoa Board comprised the following: Oda has about 12,186, Kade has about 1,590, Asamankese has about 5,967 and Nkawkaw has about 3,102 farmers.

The sample size for this study was One Hundred and Sixty (160) with each of the four selected communities constituting 40 farmers. The Eastern Region was chosen for this study because it was the first region to have seen cocoa production in the country (Hill, 1961; Baah, Anchirinah and Badu-Yeboah, 2009), though it is not the leading region in terms of production (Baah, Anchirinah and Amon-Armah (2011). The purposive sampling technique was used to select the four cocoa growing communities. This technique of sampling according to Neuman (2007) is used in situations in which an expert uses judgment in selecting cases with a specific purpose in mind. This method was chosen for this study because an interview with the Eastern Regional manager of COCOBOD revealed that the main determinant of cocoa production is the soil composition. It was further revealed that each part of the region may have a different soil composite which may also affect the information needs of the farmers. Thus the researcher purposively selected these cocoa growing communities to ensure that there was a variety in the soil composition. The snowball sampling also called network or chain referral method was used

to select the various farmers from the selected communities. This technique was used because as stated by Neuman (2007) one use of snowball sampling is to sample a network. Social researchers are often interested in an interconnected network of people or organizations. The cocoa farmers were a network of individuals involved in the same activities. Again since the researcher found it difficult locating these farmers, a referral by one of them to others was helpful to the researcher in locating others in the chain.

The data obtained from the respondents were carefully analysed using the Statistical Package for Social Sciences (SPSS). This helped to summarize the data and created the right tables and helped in evaluating the relationships among variables.

Information needs of the cocoa farmers

Cocoa farmers from Asamankese, Oda, Kade and Nkawkaw were studied, and it turned out that these farmers need information in their bid to improve upon farming. The study has helped in answering the question concerning whether the cocoa farmers have information needs or not. The study revealed that the majority of the cocoa farmers in this study 128 (94.1%) had need of information in the bid to improve their farming. This finding supports what Opara (2008) said that knowledge and information are basic ingredients for increased agricultural production and productivity. Iriwieri (2007) has also stated that the farmers need information on agriculture. The findings also pointed out the view that the majority of the cocoa farmers needed information at the early stage of looking for good variety of seedlings till the period the produce leaves their hands for marketing. Iriwieri (2007) foresaw this and stated that, agricultural information needed includes improved seedling, and price of farm products.

It was revealed that the farmers' range of information need differed depending on the level of their activities. Thus whereas a farmer who has now conceived the idea to cultivate may require information on land, a farmer who has already planted the crop may need information on the management of pest and diseases. The study again disclosed that the majority of the farmers' imperative information needs is information on varieties of seedling. This may be so because the cocoa produce is purchased by only few major buying companies and so if the variety in question does not meet the specifications of the buying companies, the farmer's toil will be in

vain. Furthermore, the findings revealed that the farmers need for information become critical when they are faced with matters regarding land, capital to start the farm, the purchase of farm inputs, farm management and harvesting of the produce.

Information resources and services available to the farmers

With regards to the information resources and service available to the farmers in their respective localities, the study revealed that the farmers make use of a variety of resources and services. These resources confirm Shannon and Weaver's model which states sources of information as a major component of the communication process. The major aspect of the findings revealed that most of the respondents depended on informal sources and services for information. This is in line with what Wolf, Just and Zilberman (2001) seem to suggest that agricultural information comes from informal contacts/neighbours. This notwithstanding, the study however revealed that some formal resources and services like libraries, internet etc were used by very limited farmers in their effort to meet their information needs. It was found out again from the study that 96 (70.6%) of the respondents obtained their information by asking friends, relatives and neighbours. Only a few 2 (1.5%) of the cocoa farmers in the study used the Internet representing the means used the least by the cocoa farmers for obtaining information. Other resources and services that these farmers use as indicated by the study include personal experience, opinion leaders and role models, extension officers, libraries, and the mass media. In line with Chisenga, Entsua and Sam's (2007) finding that poultry farmers mainly sought their knowledge and information from farmer associations, followed by fellow farmers, this study found the cocoa farmers seeking information from friends, relative and neighbours. Internet use, on the other hand, requires some skills which may not be popular within the farming communities owing to the fact that most of these farmers have no higher education. This may account for why the Internet fell short in terms of usage. The use of formal resources and services might not be popular with these farmers because, these resources are rarely found in their localities. For instance, libraries are not common in these areas and even if they are, their services are mostly geared not towards the provision of agricultural information. Again, the introduction of internet in the country has always been concentrated in the regional capitals. These resources are now gaining recognition in these areas even among the educated ones.

How the farmers meet their information needs

Again, Shannon and Weaver described in their model that the channel through which the information passes before getting to the receiver is an important component of the communication process. This study confirmed that in communicating information to the farmers, there are some channels that are mostly used. One major concern that this study sought to establish was to find out how the farmers meet their information needs. The study revealed that most of the farmers made use of informal channels of information like seeking for information from their colleagues, relying on personal experience etc. It also revealed that most of the farmers had less knowledge about most of the formal resources and services available to them. In seeking for information from the extension officers for instance, the study revealed that a majority of the farmers representing 84 (61.8%) would approach the extension officers for help when they encountered a problem. Others also did not make any effort to get information till they are approached by experts to help them. Again some of the farmers obtained the information they needed when they enrol for training programmes organized by the extension officers. Since the majority of the farmers will make an effort to seek for information whenever they are in a need is an indication that the farmers know the value information can play in their activities. It is also an indication that the farmers have knowledge on the sources of information available to them (at least those informal ones).

Another way the farmers use to meet their information need is to listen to radio programmes relating to their activities. As it can be observed, out of the 128 respondents in this inquiry, majority of the respondents, 72 (56.3%) demonstrated that they were satisfied with information on the radio in relation to their work whilst 56 (43.8%) showed they were not satisfied. Omenesa (1997) observed that radio programmes are usually timely and capable of extending messages to the audience no matter where they may be as long as they have a receiver with adequate supply of power. This means that the farmers made use of the few radio and television programmes relating to their activities.

Farmers' satisfaction with the various resources and services

The study revealed that most of the resources and services that the farmers use in meeting their information needs though were informal; the majority of them were satisfied with these sources. For instance, majority of the respondents, 78 (57.4%), showed that they get satisfied relying on their personal experience. Again, greater proportion of the respondents, 74 (54.4%) indicated that they were satisfied with information or knowledge from friends and relatives. These findings confirms an earlier study by Anyanwu, Agwu and Umeweni (2002) which reported that women farmers in Orumba North LGA of Anambra state received their farm information from non-professional inter-personal sources more often than from mediated and professional inter-personal sources. Again, it was known from Agwu and Adeniran (2009) that fellow farmers were the next appropriate channel besides radio. Furthermore a greater proportion of respondents 79(58.1%) indicating they were satisfied with information from opinion leaders and role models is an indication that these information systems are really helping the farmers. Out of 69 respondents in this inquiry, the majority of respondents 47 (68.1%) indicated that they were not satisfied with their reliance on the library for their information leaving a few 22 (31.9%) respondents who were satisfied.

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Conclusion

This study which is based on the communication model developed by Shannon and Weaver sought to find out how relevant information is to the receivers (farmers), the channels (media, extension officers colleagues etc) through which the message (information on pest control, harvesting, marketing, credit and finances etc) move from the sender (extension officers, government etc).

Firstly, it was established that cocoa farmers in the areas considered for the study have information need which when not met may hinder their activities. It was realized that farmers have a need for information as soon as they conceive the idea of cultivating cocoa. Some of these information needs for the farmers include the need for information on land tenure systems. Information on land tenure is important because if the ownership of the land is not clear the land shall not fetch good product and equitable distribution. They also have the need for information on pest and disease management, credit sources, farm management etc.

Again, the study brought to light the various information resources and services available to the farmers. It was found out that the farmers preferred resorting to the informal resources and services of information to the more formal and credible ones. This trend has developed because of the ease of access to these informal sources compared with the formal ones like libraries and extension officers which may require long and rigid procedures like registration etc. This and other reasons like the non existence of these formal sources in the areas under review have resulted in this trend. It was however noticed that though these informal resources and services may not provide accurate and credible information needed by these farmers, the farmers seemed satisfied with them. It can be concluded that access to relevant information and knowledge is very important to improve the agricultural performances and livelihoods in the rural areas especially in African countries (Lwoga, Stilwell and Ngulube, 2011).

Recommendations

Researchers, educators, extension officers, agricultural support services and village opinion leaders should work together to identify information resources in the communities, and create awareness of the available sources in the communities. This can be done through a collaborative

efforts of the Research Department of the Ghana Cocoa Board and other stakeholders like extension officers, researchers etc. Such an effort could be in the form of seminars, training, conferences and field training. Thus whenever there is any new information regardless the source, extension officers who are closer to the farmers should be informed so that they in turn will enlighten the farmers. This will enable farmers to locate what they need, as well as increasing their confidence in acquiring and adapting new knowledge to improve their farm outputs.

Again researchers, educators, extension officers, agricultural support services should nurture a knowledge culture to influence farmers' decisions to accept new knowledge, and in enabling agricultural experts to understand and determine farmers' needs and knowledge. Farmers are more likely to be motivated in adopting technologies from agricultural experts once they realize that their own inputs are inculcated in the design and development of such technologies. Thus decisions regarding the information needs of farmers should never be taken without the input of the farmers. Again this will help increase the adoption rate of agricultural information and technologies in the local communities.

It must be noted here that information service providers should use multiple sources of information (such as, face to face, print and ICTs, exhibitions, fairs, radio and television programmes etc) to deliver relevant information to farmers. For instance, the public and private organizations should establish community radio that combines vernacular languages, and indigenous communication mechanisms (such as drama, storytelling) to disseminate relevant knowledge to farmers. Print formats (such as leaflets, newsletters, books) and ICTs such as internet, emails and cell phones can also be used to share and distribute knowledge among farming communities to supplement what was gained verbally. However this will need continuous training of the farmers on how to use such resources.

The Ghana Cocoa Board and other stakeholders in this sector should ensure that adequate resources are allocated for the establishment of special libraries and information centres dedicated to the creation, processing, storage and dissemination of agricultural (cocoa) information in the various cocoa growing communities. This will go a long way in addressing the

information needs of cocoa farmers. There is therefore the need for information providers like librarians and the Ghana Cocoa Board to put their resources and knowledge together for this to actualize. If libraries are established in such communities and experts are hired to operate them, the farmers can always go there and seek for relevant information to help in raising their knowledge levels as far as their activities are concerned.

Furthermore, there should be a conscious effort by extension officers, librarians, and other information experts to get closer to the users of the information like cocoa farmers. This can be done by regular visits by information experts to the farmers, organization of training programmes which bring creators of the information to the farmers etc. This will help in eliminating the notion that such centres and services are meant for the educated and the elite.

Information literacy programmes should be designed and tailored for these farmers. This would ensure that the farmers or users of this information know when they need information, where to locate such information, how to use them etc. This would afford the farmers the necessary knowledge and confidence they need to satisfy their information needs.

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